10 minutes
5 points for each question
No calculators allowed

Math 285.002
Quiz 10
December 8, 2000

Name

Do all of your work directly on this sheet, using the back for scratch if necessary. *Circle your answers, and simplify them as much as possible.*

1. Evaluate the line integral $\oint_C \left(\left(2y + \sqrt{9 + x^3} \right) dx + (5x + e^{\arctan y}) dy \right)$, where C is the circle $x^2 + y^2 = 4$.

2. Let $\mathbf{F}(x, y, z) = \langle yz^2, xy^2, z \rangle$. Compute $\operatorname{curl} \mathbf{F}$, $\operatorname{div} \mathbf{F}$, and $\operatorname{div} \operatorname{curl} \mathbf{F}$, clearly labeling which is which.